

AMENDMENTS TO THE CLAIMS

CLAIMS:

1. (Currently amended) A method of producing a genetically modified plant having increased size yield as compared to a wild-type plant, comprising:

~~contacting~~ transforming a plant cell with at least one nucleic acid ~~sequence~~ encoding a polypeptide having at least 95% homology with SEQ ID NO: 1 DAS5 protein, said nucleic acid ~~sequence~~ operably associated with a promoter, to obtain a transformed plant cell;

producing a plant from said transformed plant cell; ~~and~~

allowing said nucleic acid to be expressed; and

selecting a plant exhibiting said increased yield size.

2. (Currently amended) The method of Claim 1, wherein the ~~contacting~~ transformation is by physical means.

3. (Currently amended) The method of Claim 1, wherein the ~~contacting~~ transformation is by chemical means.

4. (Cancelled)

5. (Original) The method of Claim 1, wherein the promoter is selected from the group consisting of a constitutive promoter and an inducible promoter.

6. (Currently amended) The method of Claim 1, wherein said polypeptide DAS5 protein has the amino acid sequence of SEQ ID NO: 1.

7. (Currently amended) The method of Claim 1, wherein said nucleic acid ~~sequence~~ has the sequence of SEQ ID NO: 3.

8. (Currently amended) A genetically modified plant exhibiting increased yield size in comparison to a wildtype plant, wherein said genetically modified plant comprises at least one exogenous nucleic acid, wherein said nucleic acid encodes sequence encoding a DAS5 polypeptide, ~~wherein said polypeptide comprises~~ an amino acid ~~sequence~~ with at least 80% 95% sequence homology to the amino acid sequence shown in SEQ ID NO : 1.

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Currently amended) The genetically modified plant of Claim 8, wherein the exogenous nucleic acid ~~sequence~~ is operably linked to a promoter selected from the group consisting of: a constitutive promoter and an inducible promoter.

13. (Original) The genetically modified plant of Claim 8, wherein said amino acid has the amino acid sequence of SEQ ID NO: 1.

14. (Currently Amended) The genetically modified plant of Claim 8, wherein said exogenous nucleic acid ~~sequence~~ has the sequence of SEQ ID NO: 3.

15. (Original) The genetically modified plant of Claim 8, wherein the plant is a dicotyledonous plant.

16. (Original) The genetically modified plant of Claim 8, wherein the plant is a monocotyledonous plant.

17. (Currently amended) A genetically modified seed, wherein said seed produces a plant exhibiting increased yield size in comparison to a wildtype plant, wherein said genetically modified seed comprises at least one exogenous nucleic acid ~~sequence~~ encoding a DAS5 polypeptide, wherein said polypeptide comprises an amino acid sequence with at least 80% 95% sequence homology to SEQ ID NO :1.

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Currently amended) The genetically modified seed of Claim 17, wherein the exogenous nucleic acid ~~sequence~~ is operably linked to a promoter selected from the group consisting of: a constitutive promoter and an inducible promoter.

22. (Original) The genetically modified seed of Claim 17, wherein said amino acid has the amino acid sequence of SEQ ID NO: 1.

23. (Currently amended) The genetically modified seed of Claim 17, wherein said exogenous nucleic acid ~~sequence~~ has at least 95% sequence homology with ~~has~~ the sequence of SEQ ID NO: 3.

24. (Previously withdrawn) A substantially purified DAS5 polypeptide having cytochrome P450 activity and functioning in the brassinolide biosynthetic pathway.

25. (Previously withdrawn) The DAS5 polypeptide of Claim 24, comprising the amino acid sequence of SEQ ID NO: 1.

Appl. No. : 09/995,917
Filed : November 27, 2001

26. (Previously withdrawn) An antibody which binds to an isolated DAS5 polypeptide or antigenic fragments thereof.

27. (Previously allowed) An isolated *DAS5* polynucleotide encoding the amino acid sequence of SEQ ID NO: 1.

28. (Previously allowed) The *DAS5* polynucleotide of Claim 27, wherein the polynucleotide has the sequence of SEQ ID NO: 3.

29. (New) The method of Claim 1, wherein said increased yield is selected from the group consisting of: increased plant growth, increased crop growth and increased plant biomass.

30. (New) The genetically modified plant of Claim 8, wherein said increased yield is selected from the group consisting of: increased plant growth, increased crop growth and increased plant biomass.

31. (New) The genetically modified seed of Claim 17, wherein said increased yield is selected from the group consisting of: increased plant growth, increased crop growth and increased plant biomass.
